Alaska
Agricultural Pest Control
Supplemental Information

Category Three

Individuals who wish to apply **Restricted Use Pesticides** (RUPs) to their own private property must be certified by the Alaska Department of Environmental Conservation (ADEC) in the Private Agricultural Pest Control Category (Category Three). **Individuals certified in Category Three are NOT authorized to conduct pest control on other properties. You may supervise pesticide application by others on your OWN property.**

RUPs have been determined to be more toxic or have increased risk when used. Because of these safety concerns, restricted use pesticide products are not available to the general public, and specialized knowledge is needed when applying these pesticides. By law, these pesticides may purchased be and used only by a certified applicator or someone under the direct supervision of a certified applicator.

The Washington State University Manuals *Agricultural Weed Management Principles* and *Introduction to Insect and Disease Management* contain the majority of information needed to successfully complete the written examination to obtain certification in Category Three in Alaska. However, regulations and requirements are different in Alaska, as are some environmental conditions, and some types of pests. This supplemental manual provides additional information that is specific to Alaska.

You will also need to have a working knowledge of the information covered in the following documents and manuals:

- National Pesticide Applicator Certification Core Manual;
- State of Alaska Pesticide Regulations in Title 18, Chapter 90 of the Alaska Administrative Code (18 AAC 90); and
- EPA How to Comply with the Worker Protection Standard Manual.

CALCULATIONS

Precise and accurate application is important for every pesticide application. Strong math skills, including the ability to calculate speed, volume, odd shaped areas, mixing ratios, rates of application, etc. will be necessary to successfully pass examination for this category.

WORKER PROTECTION STANDARDS

Compliance with Federal Worker Protection Standards (WPS) is mandatory when pesticides are used on agricultural establishments, including farms, managed forests, nurseries, and greenhouses. WPS requires employers to provide agricultural workers and pesticide handlers with protections against harm from pesticides. **If you produce agricultural products and you have employees outside of the immediate family, you MUST comply with WPS requirements.**

Detailed information about WPS requirements is available in the EPA's "How to Comply" manual. All applicators in the Private Agricultural Pest Control category must have a good understanding of WPS requirements.

RECORDKEEPING REQUIREMENTS

Both State regulations and Federal regulations administered by the United States Department of Agriculture (USDA) require certified private applicators to maintain records of their applications of restricted use pesticides.

Records must be kept for a minimum of two years and must contain the following information:

- Applicator name;
- Applicator certification number;
- Date of application;
- Pesticide product name;
- EPA registration number;
- Location of treatment site;
- Size of area treated;
- Crop or site to which product was applied; and
- Total amount applied.

ALASKA PESTICIDE USE PERMIT REQUIREMENTS

By state law, an ADEC Pesticide Use Permit is required before you may apply pesticide under the following circumstances:

- To any state owned or leased right of way, regardless of the size of application area or the pesticide to be applied.
- To any state owned or leased land that is 1 acre or more in area.
- **To any water body or wetlands, including creeks, drainages, streams, ponds, rivers and swamps, regardless of who owns the surrounding lands. This includes both man-made and natural water bodies. A permit is required even if the entire pond or creek is located on private property**.
- **To more than one property.**
- Aerial application (by airplane or helicopter).

It is against the law to apply pesticides to water without a Pesticide Use Permit.

Regulations related to permit requirements may be found at 18 AAC 90, Sections 500-540. The permitting process is rigorous, and takes a minimum of 100 days to complete. Applicators should plan well in advance to ensure that a valid Pesticide Use Permit can be obtained for the planned pesticide application.

The permitting process requires detailed information about the specifics of the proposed pesticide use. Once all the required information is submitted, the application is opened to a public comment and review period, and may require a public hearing. Once the public review period is complete, ADEC will conduct a thorough review of the proposed project and determine

whether or not to issue a Pesticide Use Permit. If a Permit is issued, it does not become valid until after a 40 day waiting period, to allow time for the public to appeal the decision.

Pesticide use often raises concern in local communities, and may become contentious. Public resistance to the proposed pesticide use may impact your ability to obtain a Pesticide Use Permit.

Failure to obtain a permit is a violation of state law, and can result in significant penalties under Alaska Statute 46.03.760. It is the responsibility of the pesticide applicator to ensure that all required permits and approvals are in place before applying pesticides.

AGRICULTURAL PESTS IN ALASKA

The most common agricultural pests in Alaska include aphids, root maggots, cut worms, army worms, late blight, and botrytis. These pests have been identified as important due to their widespread presence and the potential injury they may cause. The following tables includes agricultural pests common to Alaska.

Common Agricultural Insects In Alaska	**Crop**
• Grasshoppers, migratory (*Melanoplus sanguinipae*) and band-winged (*Camnula pellucida*)	Cereal grains, perennial forage, vegetable crops
• Capsus bugs (*Capsus simulans*)	Perennial forage
• Black grass bugs (*Irbisia pacifica & Labops hesperius*)	Perennial forage
• Green Peach Aphid (*Myzus persicae*)	Potatoes
• Potato Aphid (Macrosiphum euphorbiae)	Potatoes
• Wireworm *(*unidentified *spp.*)	Potatoes
• Aphids (various)	Vegetable crops (Lettuce)
• Cutworms (various)	Vegetable crops (Lettuce)
• Root maggots (various)	Vegetable crops (Cabbage)

Common Agricultural Weeds In Alaska	Crop
• Annual bluegrass (*Poa annua L.*) • Bluejoint reed grass (*Calamogrostis canadensis*) • Buttercup (*Ranunculus spp.*) • Canada thistle (*Cirsium arvense*) • Chickweed (*Stellaria media*) • Common tansy (*Tanacetum vulgare L*) • Corn spurry (*Spergula arvensis*) • Cow cockle (*Silene vulgaris*) • Cow parsnip (*Heracleum lanatum*) • Dandelion (*Taraxacum officinale*) • Dock (*Rumex spp.*) • Fall dandelion (*Leontodon autumnalis*) • Fireweed (*Epilobium angustifolium*) • Foxtail barley (*Hordeum jubatum*) • Hawksbeard (*Crepis spp.*) • Hempnettle (*Galeopsis tetrahit*) • Horsetail (*Equisetum spp.*) • Lambsquarter (*Chenopodium album*) • Mustard spp. (*Brassicaceae*) • Narrow leaf hawksbeard (*Crepis tectorum*) • Northern bedstraw (*Galium boreale L.*) • Orange/yellow hawkweed (*Hieracium aurantiacum & umbellatum*) • Oxeye daisy (*Chrysanthemum leucanthemum L.*) • Perennial sowthistle (*Sonchus arvensis*) • Pineapple weed (*Matricaria matricarioides*) • Plantain (*Plantago spp.*) • Prostrate knotweed (*Polygonum arenastrum*) • Quackgrass (*Agropyron repens*) • Rattlebox (*Rhinanthus minor*) • Sheep sorrel (*Rumex acetosella*) • Shepherd's purse (*Capsella bursa-pastoris*) • Tall larkspur (*Delphinium glaucum*) • Toadflax (*Linaria vulgaris*) • Tufted hairgrass (*Deschampsia cespitosa*) • Wild buckwheat (*Polygonum convolvulus*) • Wild iris (*Iris setosa*) • Wild oats (*Avena fatua*) • Wild rose (*Rosa spp.*) • Willow (*Salix spp.*) • Yarrow (*Achillea millefolium*)	Various

Common Agricultural Diseases In Alaska	Crop
• Scald (*Rhynchospoium secalis*) • Stripe (*Pyrenophora graminea*) • Net Blotch (*Pyrenophora teres*) • Spot Blotch (*Cochliobolus sativus*) • Smuts (*Ustilago spp.*)	Cereal grains
• Rust (*Puccinia spp.*) • Powdery mildew (*Erysiphe spp.*)	Perennial forage
• Late blight caused by *Phytophthora infestans* • Blackleg • Common Scab • Leak • Potato Virus S • Potato Virus X • Silver Scurf • Witches Broom • Pinkeye • Potato Leafroll Virus (rare) • Potato Virus Y (rare)	Potatoes
• *Fusarium*	Cereal grains, Potatoes, Vegetable crops
• *Rhizoctonia*	Potatoes, Vegetable crops
• White mold - *Sclerotinia sclerotiorum*	Potatoes, Vegetable crops
• *Botrytis*	Vegetable crops (Lettuce)
• Shothole (anthracnose) in lettuce	Vegetable crops (Lettuce)
• Cavity Spot in carrots	Vegetable crops (Carrots)
• Wirestem (*Rhizoctonia spp*). – cabbage	Vegetable crops (Cabbage)

Other Agricultural Pests In Alaska

- Migratory waterfowl including geese, ducks and cranes, which may feed on crops.
- Wild bison, which may feed on crops, trample crops, or leave droppings containing weed seed.
- Moose, which may also feed on crops, trample crops, or leave droppings containing weed seed.
- Bear, which may feed on crops.

(Information about agricultural pests in Alaska developed from UAF Cooperative Extension Crop Profile data).

ALASKA SPECIFIC INFORMATION ABOUT VARIOUS CONTROLS

Biological controls - Insects, animals, or pathogens can sometimes be used to control pests. However, there are no biological controls recommended for use in Alaska.

Pre-plant and pre-emergent herbicides - Timing of application of some pre-emergent herbicides in Alaska can be tricky, as they must be applied during the small window after soil is no longer frozen, but before seeds begin germination.

Residual herbicides - Herbicides become inactive in the environment in several ways. They may be broken down into component parts by sunlight (**photodegradation**), micro-organisms such as bacteria and fungus (**microbial degradation**), or natural chemical reactions in soil such as oxidation, reduction, or hydrolysis (**chemical degradation**). They may be also taken up by plants and metabolized or neutralized. Many of these processes slow or cease during the long winter season in Alaska. As a result, some herbicides may persist in the environment longer than expected.

PORTIONS OF THE WASHINGTON MANUAL TO DISREGARD

You may disregard the following sections or pages of the Washington manual, as they do not apply in Alaska:

- **Agricultural Weed Management Principles Manual, Pages 41-42:** Washington State laws and regulations do not apply in Alaska.

Before Using Any Pesticide

STOP

All pesticides can be harmful to health and environment if misused.

Read the label carefully. Use only as directed.